conisbee

Mr Jonathan Plant
Lipton Plant Architects
Islington Green Studios
81-83 Essex Road
London
N1 2SF

Ref: 110601/T Gavaza
12 Jul 2013

Dear Jonathan

44 Ferncroft Avenue, London NW3 7PE
Flood Risk Addendum

The new proposals for the site include two bedrooms at basement level with the rest of the bedroomed contained on the upper floors.

The SFRA for North London indicates that flooding occurred in Ferncroft Road in 1975. Thames Water are charged with maintaining and up grading any recurrent flooding areas.

If the sewers were to be overwhelmed they would discharged surface water into the road. The contours indicate that there is a fall along Ferncroft Avenue past the site towards its junction with Heath Drive. The fall continues down along Heath Drive from levels of this would cause surface water to flow downstream and away from the site in the event that the road was flooded. Thus any surcharge of flood waters on the highway would not adversely affect the site (See Attached Contour Plan).

The road also benefits from a 100mm kerb upstand together with a 1:40 crossfall along the footpath. Therefore facilitating the retention of flood waters within the extents of the public highway.

Additional Measures – Sewer/Surface Water Flooding.

- It is proposed that all accesses into the site fall towards the highway.

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- Porous pavements is proposed for the driveway the will act as a barrier and protect the site against water engress from the public highway.

- This SUDS feature will also attenuate surface water runoff from the site and release it a slower pass therefore also protecting the highways sewer network.

- The North London SFRA states that following the flood event Thames Water were to make further funding cases to OFWAT to relieve more properties from flooding and they indicated that flooding issues in Camden will be picked up as part of their prioritisation programme. Thames Water are mandated by regulation to identify and resolve any recurrent flooding issues on their network. Therefore reducing the level of flood risk from sewers.

- All thresholds into the building sat both ground floor and basement levels will be protected by either aco channels or external levels falling away from them and into guys linked to the external surface water drainage network.

Groundwater Flooding

The North London SFRA states groundwater levels in the Lee catchment are significantly closer by approximately 30m to the surface, whilst those in Camden being at a depth of 90m. GARDIT operate an ongoing abstraction scheme across London to maintain the level of the groundwater table in the Chalk Bedrock which is assisted by the London Clay impermeable geology. Therefore is no risk of groundwater flooding from bedrock geology.

However the groundwater has a different characteristic for the superficial shallower geology. In places the London Clay layer is overlain by deposits of gravels and silts. This is most prominent in the Lee Valley and East of Hackney where alluvium deposits from the River Lee are in evidence. There are also notable outcrops of gravels and silts further to the west in Enfield, Stanmore gravels in Barnet and gravel outcrops on Hampstead Heath. Hampstead Heath lies on a silty sand layer on top of the London clay. During rainfall events water drains through the sands before reaching the impermeable layer beneath, causing the formation of springs which feed the Highgate Ponds and form the source of the River Fleet. The nearest ponds to the site are the Leg of Mutton Pond which is located 500m northwest of the site.

Additional Ground water Flooding Protection Measures

- For the proposed development permanent waterproofing measures will be installed by providing a proprietary Waterproofing cavity drain system for the basement extension, in order to protect the proposed

  basement extension from the egress of groundwater. Dewatering apparatus should also be provided during the new basement extension works.

- The Waterproofing system would protect the basement from water and moisture by an internal cavity drainage layer and an isolated pump. Thus this will not be affected by surcharged sewers or blockage internal and external drains serving the site as the proposed drainage would not effectively be linked to the basement.

- It should also be noted that the basement is part of a larger dwelling, not a self-contained unit. The basement would thus not be seriously impacted by surface flooding.

- In emergencies the basement pump sump could also be used to dewater any flooded water that might have inadvertently flooded the basement.

- All new electrical sockets with the new basement extension are to be installed a minimum of 450mm from the finished floor levels.

We consider that these proposals would facilitate the installation of a flood resilient basement extension.

Yours faithfully

Tapiwa Gavaza
For Conisbee

524500 525000 525500 526000 526500

187000 186500 186000 185500 185000

Childs Hill
Golders Hill Park
North End
Hampstead Heath
East Heath
Vale of Health
West Hampstead
Hampstead Cemetery
Recreation Ground
Westfield
Sandy Heath

FLOOD FLOW PATHS
88.7
89.3
80.3

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0 400 m

Envirocheck® Flood

RMS 75 year Return Flood Map (1:10,000)

General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

RMS 75 year Return Flood Data

Flood Depth (mm)	Flood Type: Defended Flood	Flood Type: Undefended Flood	Pluvial & Minor River Flood (flood depth n/a)
0 - 200			
201 - 500			
501 - 2000			
2001 +			

Contours (height in metres)

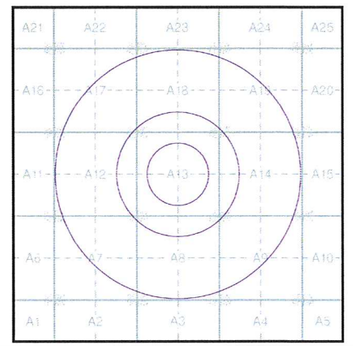
Standard Contour 105 100 95

Index Contour

*167.3 Spot Height

*45.8 Air Height

RMS 75 year Return Flood Map - Slice A



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Order Details

Order Number:	43193165_1_1
Customer Ref:	110601
National Grid Reference:	525590, 185880
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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Landmark Information Group

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